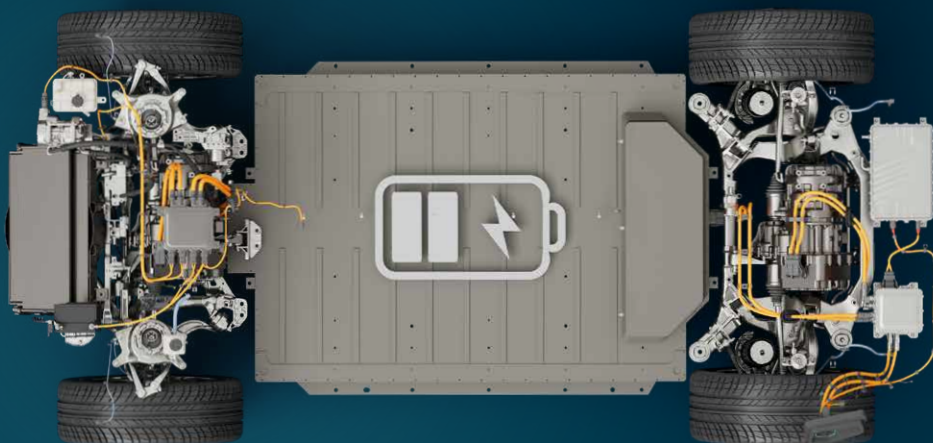


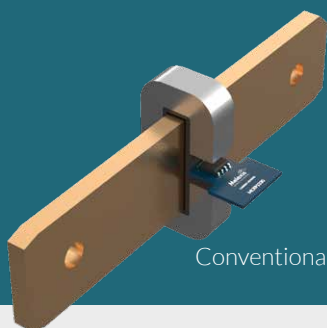
EV BATTERY

Melexis ICs provide the intelligence and efficiency required for the primary power stages of electrified vehicles (xEV). Our solutions facilitate the transition of energy from the grid to the battery, and ultimately to the vehicle's vital systems.

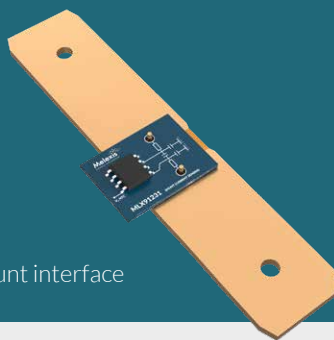


Current Sensor ICs

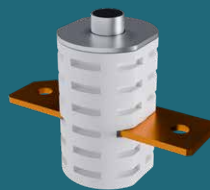
Our high-performance current sensors are designed for precision and safety in electrified vehicle (xEV) applications.



Conventional Hall



Shunt interface



BJB Pyrofuse



BMS SoX



Technology choice

- ✓ High accuracy
- ✓ Galvanic isolation (Hall)
- ✓ System design flexibility
- ✓ Functional safety

Hydrogen Sensor ICs

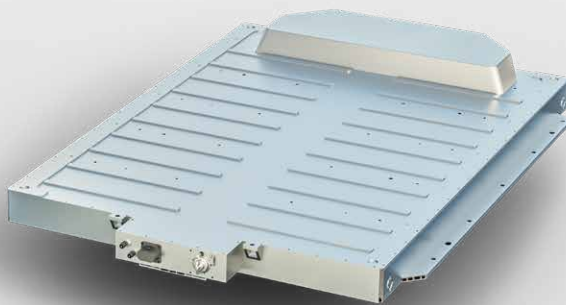
Melexis hydrogen sensors provide early warning for battery thermal runaway in EV. By measuring the thermal conductivity of gas, our physical sensing principle ensures the long-term reliability and low drift required for automotive safety.



in development

Technology choice

- ✓ High selectivity & reliability
- ✓ Fast response time
- ✓ Low-power consumption



Pressure Sensor ICs

Melexis also offer pressure sensors for thermal runaway detections in high voltage battery

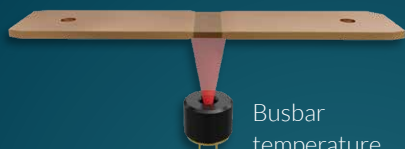


Technology choice

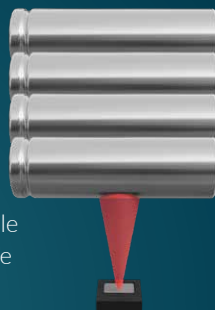
- ✓ Best accuracy
- ✓ Factory calibrated
- ✓ Small footprint

Temperature Sensor ICs

Our accurate infrared temperature sensors deliver rapid response times and galvanic isolation for superior thermal monitoring.



Busbar temperature monitoring



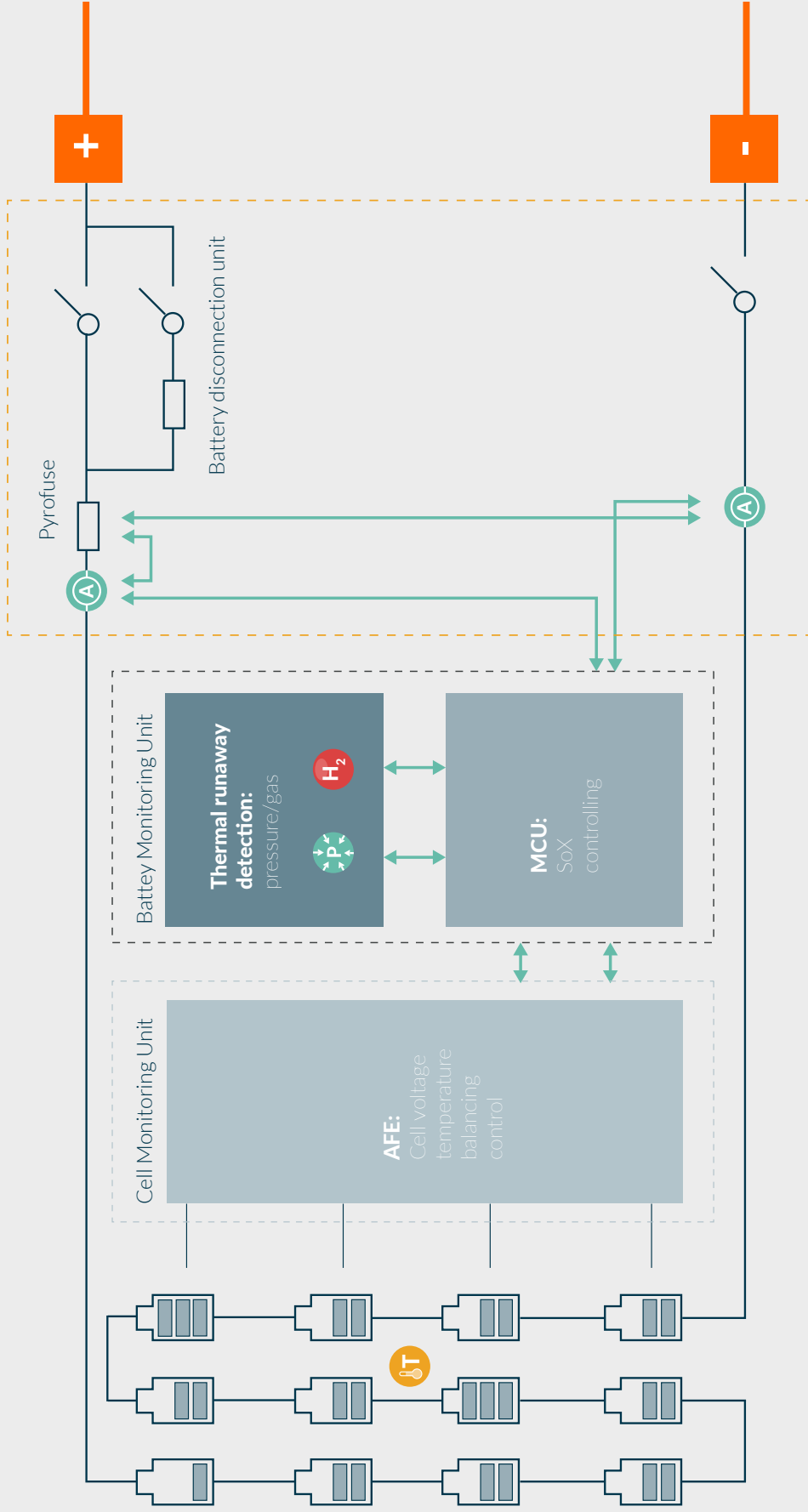
Pack/Module temperature monitoring

Technology choice

- ✓ Contact-less
- ✓ Fast response time
- ✓ Ease of integration
- ✓ Reliable over time



www.melexis.com/EV-battery



TEMPERATURE
SENSOR



PRESSURE
SENSOR



HYDROGEN
SENSOR



CURRENT
SENSOR

Monitoring

- MLX90614 (single pixel)
- MLX90637 (miniature SMD)

Thermal runaway

- MLX90817 (absolute)

Thermal runaway

- Coming soon (sampling)

Battery sensing

- MLX91230 (conventional Hall)
- MLX91231 (Shunt)